

Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application and annexed to the International Preliminary Report on Patentability:

Claims 1-6, 12-21 are cancelled

22. (new) A method for processing user requests for credit based network access, said method comprising:

receiving a user request for user access according to an authentication protocol;

forwarding user credentials in response to said user request;

receiving an access response authenticating said credit-based network access, said access response containing a parameter having a credit value indicative of a length of available continued network access based on remaining user credit;

transmitting a re-authentication request in response to said credit parameter value reaching a threshold value to cause a re-authentication to occur; and

receiving and forwarding user credentials before granting further access to the network by said client device.

23. (new) The method of claim 22, wherein said parameter comprises a session-timeout parameter associated with IEEE 802.1X authentication protocol.

24. (new) The method of claim 22, further comprising receiving a re-authentication response for re-establishing said network access based on said credit parameter value

25. (new) The method of claim 24, wherein the re-authentication response is based on the results of a comparison of said credit parameter value with said threshold value.

26. (new) The method of claim 22, wherein said credit parameter value contained in said access response is based on one of: a) time usage; and b) traffic volume usage.

27. (new) The system of claim 37, wherein said parameter value comprises a session-timeout parameter.

28. (new) The system of claim 38, wherein said authentication server is a RADIUS authentication server, and further wherein said authentication server contains memory for storing said indicator of remaining user credit.

29. (new) The system of claim 38, wherein said parameter value contained in said access response is based on one of: a) time usage; and b) traffic volume usage.

30. (new) The system of claim 38, wherein in response to said re-authentication process, said authentication server retrieves said indicator of remaining user credit and denies re-authentication of said client device when said indicator of remaining user credit drops below a threshold value.

31. (new) The system of claim 30, wherein the indicator of remaining user credit comprises a credit timer indicative of the remaining credit balance, said credit timer being decremented according to a temporal access usage.

32. (new) The system of claim 30, wherein the authentication server periodically updates the credit timer in units of: a) time and b) traffic volume.

33. (new) A method for processing user requests for credit based network access, said method comprising:
receiving user credentials associated with said user request for credit based network access;

calculating, in response to said user credentials, a session-timeout parameter value based on remaining user credit and network charges, said session-timeout parameter value indicative of a length of available continued network access;

embedding said session-timeout parameter value in an access response message authenticating said credit based network access;

activating a credit timer having a value indicative of remaining user credit balance, said credit timer decremented according to a temporal access usage;

forwarding said access response message;

receiving said user credentials in response to a re-authentication request for re-authenticating said credit based network access;

comparing said credit timer value with a predetermined threshold value; and

determining whether said network access is de-authenticated from further network access based on said comparison.

34. (new) The method according to claim 33, further comprising transmitting a de-authentication response message when said credit timer value is below said pre-determined threshold value.

35. (new) The method according to claim 33, further comprising transmitting a re-authentication response message when said credit timer value is above said pre-determined threshold value.

36. (new) The method according to claim 33, wherein said session-timeout parameter value is associated with an IEEE 802.1x authentication protocol.

37. (new) A system for processing user requests for credit based network access, comprising an access point associated with a network, said access point providing said credit based network access based on authentication according to an authentication protocol, and wherein said access point is responsive to an access response message containing a parameter having a value indicative of remaining user credit, so as to cause said access point to initiate a re-authentication process upon expiration of a timer corresponding to said parameter value by requiring a user

EXPRESS MAIL LABEL NO. EL 962134642 US
Customer No. 24498

PU030222

associated with a client device to re-provide user credentials to permit re-authentication before one of granting and denying further credit based network access.

38. (new) A system for processing user requests for credit based network access, comprising an authentication server, said authentication server is responsive to an access request message containing user credentials and wherein said authentication server transmits an access response message containing a parameter having a value indicative of a length of available continued network access based on an indicator of remaining user credit so as to cause initiation of a re-authentication process upon expiration of a timer corresponding to said parameter value by requiring a user associated with a client device to re-provide user credentials to permit re-authentication before one of granting and denying further credit based network access.